

--45. The composition of claim 1, wherein the ligand is a fragment of an antibody comprising at least a portion of an immunoglobulin light chain variable region and at least a portion of an immunoglobulin heavy chain variable region.

46. The composition of claim 45, wherein the fragment comprises an immunoglobulin light chain variable region and an immunoglobulin heavy chain variable region.

47. The composition of claim 1, wherein the ligand comprises a single chain Fv fragment of an antibody.--

REMARKS

Claims 1-21 and 44 are being examined in the present application. Claims 5-7, 9, and 10 are allowed.

The Invention

The invention is directed to compositions and methods for internally labeling a cell. The composition of claim 1 comprises (1) a ligand which specifically binds to a cell surface antigen and becomes internalized by the cell, (2) an oligopeptide which comprises at least one positively-charged amino acid residue and at least one D-amino acid residue and is covalently bound to the ligand; and (3) a label which is covalently bound to the oligopeptide. Dependent claims 2-21 and 44 specify the features of the ligand, the oligopeptide, and the label in various embodiments.